

TOP SECRET

OUT54306

P 240021Z
FM NPIC

multi

1964 OCT 24 01 10Z 26 OCT 1964

AFSSO USAFE
AFSSO PACAF

OPCEN
CNO

YWOLAZC/AFSSO SAC
YWOLAZC/AFSSO ACIC
YWOLAZC/AFSSO FTD
ZEM

TOP SECRET

OPS
PMS
AGL

Class (File)

25X1

25X1

25X1

25X1

25X1

SSOS PASS TO APPROPRIATE TCOS.

CITE NPIC 3137.

SUBJECT: CAMERA INFORMATION FOR MISSION 1012-1.

A. THIS PHOTOGRAPHY INVOLVES THE USE OF EIGHT CAMERAS:
TWO MAIN CAMERAS, FOUR HORIZON CAMERAS, A STELLAR CAMERA, AND AN
INDEX CAMERA.

B. OPERATIONAL FOCAL LENGTHS (MM)

HORIZON

	MAIN	PORT	STARBOARD	STELLAR	INDEX
FWD UNIT	609.628	54.98	54.45 (PART 1)	83.9653	38.3461
AFT UNIT	690.602	54.97	55.21 (PART 2)	83.0143	38.1302

C. LENS DISTORTION (PIN CUSHION) MM

DEGREES

(1) MAIN LENS	3	2	1	0	359	358	357
FWD UNIT	.000	.000	.000	.000	.001	.000	.004
AFT UNIT	.003	.000	.001	.000	.000	.003	.003

25X1

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(2) HORIZON CAMERAS (MM) FWD

	PORT	STARBOARD	PORT	STARBOARD
(RADIAL) 10 DEGREES	.002	.009	.002	.001
20 DEGREES	.007	.006	.005	.003
(TANGENTIAL) MAX VECTOR	.005	.004	.002	.004

D. DEPRESSION ANGLES OF HORIZON CAMERAS RELATIVE TO
NOMINAL MAIN CAMERA

	PORT	STARBOARD
FWD	15 DEGREES 28 MIN.	15 DEGREES 13 MIN.
AFT	14 DEGREES 43 MIN.	15 DEGREES 09 MIN.

E. CAMERA FILTER AND EXPOSURE DATA

	MAIN	HORIZON	STELLAR	INDEX
FILTER	WRATTEN 21	WRATTEN 25	NONE	WRATTEN 21
APERTURE	F 3.5	STARBOARD F 3.0	F 1.3	F 4.5
		PORT F 5.0		

SLIT WIDTH/

EXPOSURE	0.200 INCH	1/100 SEC.	2.0 SEC.	1/500 SEC.
FILM	4404	4404	4401	4400

F. RESOLUTION CAPABILITIES

(1) (L/MM AVG)	MAIN	PORT	HORIZON	STARBOARD	HORIZON
FWD	173	146		143	
AFT	193	147		146	
(2) INDEX (L/MM AWAR)	PART 1	73.3	PART 2	73.3	

G. TIMING MARKS.

FREQUENCY MARKS WILL APPEAR ON THE FILM AT A RATE OF
200 CYCLES PER SECOND.

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H. CALIBRATED ANGLES OF CAMERAS

(1) CALIBRATED CONVERGENT ANGLE OF MAIN CAMERAS 29 DEGREES
56.7 MIN.

(2) CALIBRATED ANGLE BETWEEN STELLAR AND INDEX CAMERAS

(PART 1) 90 DEGREES 0.1 MIN.

(PART 2) 90 DEGREES 1.5 MIN.

I. IMAGE MOTION COMPENSATION DATA

(1) CYCLE RATE (CPS) AND GROUND ANGULAR VELOCITY (GAV IN RAD/SEC)

REF. LEVEL

AMPL. LEVEL

NO. CPS. GAV.

NO. CPS. GAV.

6 .3373 .0305 SEE PARA L 5 .1201 .0109

(2) PASSES: REF. 6, AMPL. 5: 1D1 THRU 49D1

J. PROGRAM TIME DATA

	CAMERA ON TIME				PROGRAM ON TIME	PROGRAM
PASS	(ZEBRA TIME)				UP RAMP	DURATION
	DAY	HR	MIN	SEC	SEC	SEC
1D1	17	23	23	29	976	51
2D1	18	00	55	10	1039	153
3D1	18	02	30	00	1291	93
3D2	18	02	32	17	1423	83
4D1	18	04	01	34	1347	105
4D2	18	04	03	55	1488	79
5D1	18	05	33	54	1449	104
5D2	18	05	36	49	1624	118
0D1	18	07	03	29	1335	73
0D2	18	07	07	45	1641	43
0D3	18	07	09	09	1725	141

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7D1	13	33	33	27	1156	234
7D2	13	33	34	26	1406	54
8D1	13	13	33	49	1330	131
8D2	13	10	36	07	1463	114
9AE	13	11	15	45	233	49
9D1	13	11	35	21	1409	170
14D1	18	19	17	19	1964	59
15D1	18	20	44	53	1783	56
18D1	19	01	36	40	1188	102
20D1	19	34	03	32	1235	137
20D2	19	34	13	12	1514	113
21D1	19	35	43	47	1517	72
21D2	19	35	43	53	1823	101
22D1	19	37	39	31	1198	82
22D2	19	37	13	01	1433	74
22D3	19	37	16	13	1630	132
23D1	19	08	43	33	1407	250
23D2	19	33	47	51	1695	56
24D1	19	10	13	55	1425	156
25AE	19	11	25	15	273	47
25D1	19	11	46	56	1575	165
26D1	19	13	23	41	1946	70
30D1	19	19	26	34	1986	70
33D1	19	23	45	38	1267	93
34D1	20	31	14	27	1164	132
34D2	20	01	17	10	1327	94

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35D1	20	02	44	12	1116	123
35D2	20	02	48	21	1364	93
36D1	20	04	18	57	1368	239
36D2	20	04	23	52	1663	71
37D1	20	05	46	12	1172	143
37D2	20	05	50	03	1522	83
37D3	20	05	55	59	1759	132
37D4	20	05	59	48	1937	72
38D1	20	07	17	00	1186	189
38D2	20	07	22	05	1491	124
38D3	20	07	25	48	1713	70
39D1	20	08	43	24	1238	81
39D2	20	08	51	33	1427	91
39D3	20	08	53	44	1558	160
39D4	20	08	57	09	1763	63
40D1	20	10	21	50	1412	191
41AE	20	11	34	01	310	48
41D1	20	11	54	30	1539	30
41D2	20	11	57	24	1713	79
42D1	20	13	30	47	1833	56
46D1	20	19	31	27	1793	55
47D1	20	21	02	18	1812	100
49D1	20	23	51	17	1086	101

NOTE: DATA IS THE SAME FOR BOTH THE MASTER (FWD) AND THE
SLAVE (AFT) UNITS.

K. TIME CORRELATION (MILLISECONDS)

PASS SYSTEM TIME CLOCK TIME DIFFERENCE

0	79775.118	42696.309	
9	40614.322	89935.539	PLUS 0.026
16	80144.053	129465.292	PLUS 0.022
25	41132.532	176903.847	PLUS 0.026
32	80678.766	216400.052	PLUS 0.021
41	41709.512	263330.824	PLUS 0.026
47	75726.400	297347.731	PLUS 0.019

L. IMC RAMP PERIOD IS 3840 SEC.

GP-1.

T O P S E C R E T

-END OF MESSAGE-

(ALSO PASSED)

25X1